

Claims

1. A retroviral vector derived from a non-primate lentivirus genome comprising a deleted *gag* gene wherein the deletion in *gag* removes one or more nucleotides downstream of nucleotide 350 of the *gag* coding sequence.
2. A retroviral vector according to claim 1 wherein the deletion extends from nucleotide 350 to at least the C-terminus of the *gag-pol* coding region.
3. A retroviral vector according to claim 1 or claim 2 wherein the deletion additionally removes nucleotide 300 of the *gag* coding region.
4. A retroviral vector according to claim 1 wherein the deletion retains the first 150 nucleotides of the *gag* coding region.
5. A retroviral vector according to claim 1 wherein the deletion retains the first 109 nucleotides of the *gag* coding region.
6. A retroviral vector according to claim 1 wherein the deletion retains only the first 2 nucleotides of the *gag* coding region.
7. A retroviral vector derived from a non-primate lentivirus genome wherein one or more accessory genes are absent from the non-primate lentivirus genome.
8. A retroviral vector according to claim 7 wherein the accessory genes are selected from *dUTPase*, *S2*, *env* and *tat*.
9. A retroviral vector derived from a lentivirus genome wherein the non-primate lentivirus genome lacks the *tat* gene but includes the leader sequences between the end of the 5' LTR and the ATG of *gag*.

10. A retroviral vector according to any preceding claim which comprises at least one component from an equine lentivirus.

11. A retroviral vector according to claim 10 wherein the equine lentivirus is EIAV.

12. A retroviral vector according to claim 11 wherein the retroviral vector is substantially derived from EIAV.

13. A retroviral vector production system for producing the retroviral vector of any preceding claim comprising a packaging cell comprising a *gag-pol* gene from a non-primate lentivirus and an envelope gene.

14. A retroviral vector produced by the production system of claim 13.

15. A hybrid viral vector system comprising a primary viral vector derived from a poxvirus and a second viral vector derived from a retrovirus.

16. A retroviral particle obtainable from the retroviral vector of any one of claims 1 to 12 or claim 14 or 15.

17. A cell transfected or transduced with a retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16.

18. A retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16 or a cell according to claim 17 for use in medicine.

19. Use of a retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16 or a cell according to claim 17 for the manufacture of a pharmaceutical composition to deliver an NOI to a target site in need of same.

20. A method comprising transfecting or transducing a cell with a retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16 or by use of a cell according to claim 17.

21. A delivery system in the form of a retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16 or a cell according to claim 17.

22. A delivery system for a retroviral vector according to any one of claims 1 to 12 or claim 14 or 15 or a retroviral particle of claim 16 or a cell according to claim 17 wherein the delivery system comprises a non-retroviral expression vector, an adenovirus and/or a plasmid.

23. A retroviral vector substantially as hereinbefore described with reference to the accompanying Figures.

24. A retroviral vector production system substantially as hereinbefore described with reference to the accompanying Figures.

25. A retroviral particle substantially as hereinbefore described with reference to the accompanying Figures.

26. A cell transfected or transduced with a retroviral vector substantially as hereinbefore described with reference to the accompanying Figures.

27. Use of a retroviral vector substantially as hereinbefore described with reference to the accompanying Figures.

28. A method comprising transfecting or transducing a cell with a retroviral vector substantially as hereinbefore described with reference to the accompanying Figures.

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29. A delivery system in the form of a retroviral vector substantially as hereinbefore described with reference to the accompanying Figures.